

2123
#6
SP
2-12-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

S. MARK HAUGLAND

Filed: February 28, 2002

Serial No.: Unknown

For: METHOD OF DETERMINING
RESISTIVITY AND/OR
DIELECTRIC VALUES OF AN
EARTH FORMATION AS A
FUNCTION OF POSITION WITHIN
THE EARTH FORMATION

§ Confirmation No.:

§ Art Unit:

§ Examiner:

§ Docket No.: H052722.0029US0

RECEIVED

FEB 11 2004

INFORMATION DISCLOSURE STATEMENT

~~MENT~~ Technology Center 2100

BOX PATENT APPLICATION

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Applicant hereby submits the following references in accordance with 37 C.F.R. §§ 1.56 and 1.97. Copies of the references cited in the attached PTO-1449 are enclosed.

Respectfully submitted,

George W. Jordan III, Reg. No. 41,880
ATTORNEY OR AGENT OF RECORD

Date: 9/28/00
AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P.
711 Louisiana, Suite 1900
Houston, Texas 77002
Telephone: (713) 220-5800
Facsimile: (713) 236-0822

052722.0029 HOUSTON 225577 v1

10086043

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor S. Mark Haugland	
		Group Art Unit	
		Examiner Name	
Sheet 1	of 2	Attorney Docket Number H052722.0029US	

RECEIVED

FEB 11 2004

Technology Center 2100

U.S. PATENT DOCUMENTS				
Exr Initials	U.S. Patent Document		Name of Inventor or Applicant of Cited Document	Date of Publication of Cited Document MM-YYYY
	Number	Kind Code (if known)		
	3,944,910		Rau	03-1976
	4,185,238		Huchital et al.	01-1980
	4,209,247		Urano et al.	06-1980
	4,209,747		Huchital	06-1980
	4,899,112		Clark et al.	02-1990
	4,968,940		Clark et al.	11-1990
	5,157,605		Chandler et al.	10-1992
	5,594,343		Clark et al.	01-1997
	5,869,968		Brooks et al.	02-1999
	5,881,973		Agajanian et al.	03-1999
	6,060,884		Meyer, Jr. et al.	05-2000

FOREIGN PATENT DOCUMENTS					
Exr Initials	Foreign Patent Document			Name of Inventor or Applicant of Cited Document	Date of Publication of Cited Document MM-YYYY
	Country Code	Number	Kind Code (if known)		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			T ₁
Exr Initials	Include Name of first Author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), volume-issue number(s), page(s), date (in parentheses). If a book, also include publisher and city and/or county where published.		
	<i>Dielectric-Independent 2-MHz Propagation Resistivities</i> , Peter T. Wu, John R. Lovell, Brian Clark, Stephan D. Bonner and Jacques R. Tabanou, Society of Petroleum Engineers, Inc. SPE 56448, 19 pages (© 1999)		
	<i>New Developments In 2-MHz Electromagnetic Wave Resistivity Measurements</i> , S. Gianzero, G. A. Merchant, M. Haugland and R. Strickland, SPWLA 35 th Annual Logging Symposium, pp. 1-25 (June 19-22, 1994)		
	<i>Vertical Deconvolution of 2 MHz Propagation Tools</i> , Richard Rosthal, David Allen and Stephen Bonner, SPWLA 34th Annual Logging Symposium, (June 13-16, 1993)		
	<i>Geometric Factor and Adaptive Deconvolution of MWD-PWR Tools</i> , Q. Zhou, D. J. Hilliker and D. Norwood, The Log Analyst, pp. 390-398 (July-August, 1992)		
	<i>Reconciling Differences in Depth of Investigation Between 2-MHz Phase Shift and Attenuation Resistivity Measurements</i> , Tarek Habashy and Barbara Anderson, SPWLA 32 nd Annual Logging Symposium, pp. 1-20 (June 16-19, 1991)		
	<i>Complex Variables and Applications</i> 5 th Ed., Ruel V. Churchill and James Ward Brown, 2 cover pages and pp. 48-50 (©1990)		
	<i>Waves and Fields In Inhomogeneous Media</i> , Transients, Weng Cho Chew, 2 cover pages, pp. 244-246, 360-365 and 485-487 (©1990)		

10 086 043

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	S. Mark Haugland
		Group Art Unit	
		Examiner Name	
Sheet 2 of 2	Attorney Docket Number	H052722.0029US	

RECEIVED

FEB 11 2004

Technology Center 2100

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Exr Initials	Include Name of first Author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), volume-issue number(s), page(s), date (in parentheses). If a book, also include publisher and city and/or county where published.	T ₁
	<i>Algorithm 624: Triangulation and Interpolation at Arbitrarily Distributed Points In the Plane</i> , Robert J. Renka, ACM Transactions On Mathematical Software, Vol. 10, pp. 440-442 (December 4, 1984)	
	<i>A Triangle-Based C' Interpolation Method</i> , R. J. Renka and A. K. Cline, Rocky Mountain Journal of Mathematics, Vol. 14, No. 1, pp. 223-237 (Winter 1984)	
	<i>More On the Laterlog Device</i> , J. H. Moran and R. E. Chemali, Geophysical Prospecting 27, pp. 902-930 (1979)	
	<i>Geophysics, A Journal of General and Applied Geophysics</i> , Published by The Society of Exploration Geophysicists, Vol. XXVII, No. 6, Part 1, cover page and pp. 828-858 (December 1962)	
	<i>Effect of Tool Eccentricity on Some Electrical Well-Logging Tools</i> , John R. Lovell and Weng Cho Chew, IEEE Transactions on Geoscience and Remote Sensing, Vol. 28, No. 1, pp. 127-136 (January 1990)	
	BADEA, EUGENE A. AND EVERETT, MARK E., <i>3-D Finite Element Analysis of Induction Logging</i> , 4 pages (date unknown)	
	<i>Fundamental Analysis of Remote-Field Eddy-Current Effect</i> , IEEE Transactions on Magnetism, Vol. 32, No. 4, pp. 3195-3211 (July 1996)	
	<i>Numerical Recipes</i> , The Art of Scientific Computing, ©Cambridge Press 1986 and © Numerical Recipes Software, 2 cover pages, pp. 52-65 and 520-527 (1986)	
	<i>NAG Fortran Library Manual Mark 18</i> , ©The Numerical Algorithms Group Limited, Vol. 4, D04-4E04L cover pages and pp. E04.1-E04.16 and 1-6 (September 1997)	
	<i>New Discovery with Important Implications for LWD Propagation Resistivity Processing and Interpretation</i> , S. Mark Haugland, SPWLA 42 nd Annual Logging Symposium, pp. 1-14 (June 17-20, 2001)	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--